

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 12166	
I hereby certify that this correspondence is being electronically transmitted to the USPTO On <u>February 26, 2006</u> Signature <u>/Alisa J. Budesheim/</u> Typed or printed name <u>Alisa J. Budesheim</u>		Application No. 10/644,450	Filed August 20, 2003
		First Named Inventor Katrina Schmidt	
		Art Unit 1711	Examiner John M. Cooney
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> <input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input type="checkbox"/> attorney or agent of record. Registration Number <input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number 53,047 </div> <div style="width: 50%; text-align: center;"> <u>/Kristopher K. Hulliberger/</u> Signature <u>Kristopher K. Hulliberger</u> Typed or Printed Name <u>(248) 645-1483</u> Telephone Number <u>February 26, 2007</u> Date </div> </div> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			

☒ * Total of **1** forms are submitted.

This collection of information is required by 37 CFR 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Katrina Schmidt
Serial No. : 10/644,450
Filed : August 20, 2003
Atty. No : 12166
Title : FORMULATED RESIN COMPONENT FOR USE IN A
SPRAY-IN -PLACE FOAM SYSTEM TO PRODUCE LOW
DENSITY POLYURETHANE FOAM

Art Unit : 1711
Examiner : Cooney, John M.

PRE-APPEAL BRIEF REQUEST FOR REVIEW

MAIL STOP AF
Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Applicant respectfully asserts that a variety of clear errors have been made in the Examiner's §103 rejections set forth in the final Office Action of October 27, 2006. As such, Applicant asserts that the Examiner has not established the requirements for a *prima facie* rejection of the claims based on 35 U.S.C. §103.

Claims 1, 3-4, 6, 8-11, 13-14, 16-19, 21-29, 31, 34, 36-42, and 44 remain in this application with claims 1, 26 and 39 in independent form. Claims 1, 3-4, 6, 8-11, 13-14, 16-19, 21-29, 31, 34, 36-42, and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 5,340,900 to Spitzer et al.

Claims 1, 3-4, 6, 8-11, 13-14, 16-19, and 21-25

Referring to independent claim 1, the subject invention is directed toward a formulated resin component for use in a polyurethane spray foam system to produce a

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polyurethane foam having density of less than 1 pound per cubic foot. Claim 1 requires the blowing agent present in an amount of from 15 to 40 parts by weight based on 100 parts by weight of the resin component.

The unique combination of the blowing agent, the first polyol, the second polyol, and the curing component (set forth in more detail in the Amendment dated August 16, 2006, pages 9-11), in the claimed amounts improves rise, gel, and cure times of the polyurethane foams formed therefrom. This improvement reduces and/or eliminates dripping when the components are sprayed. Further, primary amines of the curing component contribute to the open cells of the polyurethane foam which is believed to decrease water absorption, which was unexpected and is set forth in the specification as originally filed.

It is to be appreciated that polyurethane spray foam systems have unique requirements for pre-processing and post-processing, as set forth in the detailed description as originally filed. Examples of such unique requirements include dripping while spraying, dripping when burning, and low flame spread. Spitzer et al. does not disclose, teach, or suggest a resin for use in a polyurethane spray foam system. On the contrary, Spitzer et al. is directed toward polyurethane shaped articles that are formed in a mold by way of mechanical casting (see col. 11, lines 16-20) that do not undergo a brittle phase during curing. As such, one of ordinary skill in the art would not be motivated to modify Spitzer et al. without relying on impermissible hindsight to arrive at a resin component for a polyurethane spray foam system.

Additionally, Spitzer et al. states “the composition can further comprise customary additives suitable for polyurethane technology *in customary amounts*.” (see col. 6, lines 18-39) [emphasis added]. Spitzer et al. states that the additives include:

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catalysts, both basic compounds, such as tertiary amines, for example N-methylethanolamines, such as, in particular, N-methyldiethanolamine, triethanolamine, dibenzylmethylamine, diazabicyclooctane and the like, and acid compounds, for example organotin compounds, such as dibutyltin laurate. Other additives are: foam suppressants, for example polysilicones, surface-active substances, such as castor oil, drying agents, for example molecular sieves based on zeolite, internal mould release agents, fillers, dyes, pigments, in particular titanium dioxide, flameproofing agents or blowing agents, in particular water.

Spitzer et al. states that the total content of additives, i.e., all that are present, is in general 0 to 30% by weight. Spitzer et al. does not disclose, teach, or suggest, employing the blowing agent in the claimed amounts. Each of the examples in Spitzer et al. include a drying agent, POLYSORB 668, which is known to be able to absorb water and prevent water from being present therein. None of the Examples disclosed in Spitzer et al. utilize a blowing agent in forming the foam. This is contrary to the Examiner's assertion that it would have been obvious to use the blowing agent in the amounts claimed. Further, the Examples of Spitzer et al. are silent as to the densities of the foams formed therefrom. As such, it would not have been obvious to one of ordinary skill in the art reviewing Spitzer et al. without impermissible hindsight to incorporate the blowing agent in the claimed amounts to arrive at a resin for use in a polyurethane spray foam system.

Claim 1 is believed to be allowable and claims 3-4, 6, 8-11, 13-14, 16-19, 21-25, which depend directly or indirectly from claim 1, are also believed to be allowable.

Claims 26-29, 31, 34, 36-42 and 44

Referring now to independent claims 26 and 39, both claims require that the resin component and the isocyanate component be sprayed at an isocyanate index of from 15 to 70. As discussed in paragraph [0027] of the specification as originally filed, the primary amine

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groups are present in an amount such that unreacted hydroxyl groups remain in the foam, thus surprisingly reducing and/or eliminating dripping if the polyurethane foam is burned thereby meeting various flammability safety standards that was previously unlikely. The reduced dripping has not previously been possible with sprayed polyurethane foams that have a lower density, especially when sprayed at volumetric ratios of 1:1, and as such the prior art low density foams do not meet the various flammability safety standards.

Spitzer et al. discloses utilizing an isocyanate number, or index, in a *customary amount*. Spitzer et al. specifically states:

The reaction mixtures according to the invention comprise the polyisocyanate in the customary amount, in general corresponding to an isocyanate number (quotient of the number of isocyanate groups and the number of groups which can react with isocyanate groups in the reaction mixture, multiplied by 100) of between 70 and 130, preferably corresponding to an isocyanate number of between 90 and 110. A primary amino group here again corresponds to a hydroxyl group. (See col. 7, lines 55-63).

Thus, Spitzer et al. merely discloses using a well known isocyanate index, as opposed to the subject invention which is sprayed at an isocyanate index of from 15 to 70. The Examiner has not addressed this limitation and, thus, has presented no arguments or evidence in the remarks to provide a basis for establishing a *prima facie* case of obviousness as it relates to the isocyanate index as claimed.

Claims 26 and 39 are believed to be allowable. Claims 27-29, 31, 34, 36-38, 40-42, and 44, which depend directly or indirectly from these independent claims, are also believed to be allowable.

Due to the Examiner's omissions, the requirements for a *prima facie* rejection based on 35 U.S.C. §103 have **not** been satisfied. Based on the above summary and the correspondence of record, the Applicants believe that the claims in the present application are

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in condition for allowance, and respectfully request review of the Examiner's position relative to this 35 U.S.C. §103 rejection, prior to Applicant's filing a formal Appeal Brief.

The Commissioner is authorized to charge the Deposit Account No. 08-2789, in the name of Howard & Howard Attorneys, P.C., for any fees or credit the account for any overpayment.

The undersigned is an attorney acting under 37 CFR 1.34.

Respectfully submitted

HOWARD & HOWARD ATTORNEYS, P.C.

February 26, 2007
Date

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